

AMENDMENTS TO THE CLAIMS:

1-123 (Cancelled).

124. (Currently amended) A process for preparing an orthopaedic implant prosthesis bearing having improved mechanical properties and increased wear resistance comprising the steps of:

providing ~~a polyethylene~~ an ultrahigh molecular weight polyethylene (UHMWPE) preform from which the bearings are to be fabricated;

heating the preform to a temperature above the melting point of the UHMWPE to about 300°C ~~greater than its melting temperature and less than its decomposition temperature for a time sufficient to increase its percent elongation to break properties;~~

and then, subsequently irradiating the preform.

125. (Currently amended) The process of claim 124 wherein the heating step is performed at temperatures from about 137°C to about 300°C ~~280°C to about 355°C~~.

126. (Currently amended) The process of claim 124 wherein the preform is irradiated with gamma radiation at a dose of about 0.5 to about ~~[[10]]~~ 30 Mrad.

127. (Currently amended) A process for preparing an orthopaedic implant prosthesis bearing having improved mechanical properties and increased wear resistance comprising the steps of:

providing ~~a polyethylene~~ an ultrahigh molecular weight polyethylene (UHMWPE) preform from which the bearings are to be fabricated;

Irradiating the preform; and

heating the preform to a temperature above the melting point of the UHMWPE to about 300°C ~~greater than its melting temperature and less than its decomposition temperature for a time sufficient to increase its percent elongation to break properties.~~